Department of Defense

INSTRUCTION

NUMBER 3110.5

September 14, 1990

ASD(P&L)

SUBJECT: Materiel Condition Reporting for Mission-Essential Systems and Equipment

References: (a) DoD Instruction 7730.25, "Materiel Condition Reporting for Mission-Essential Systems and Equipment," May 22, 1980 (hereby canceled)

(b) DoD Directive 5000.11, "Data Elements and Data Codes Standardization Program," December 7, 1964

1. PURPOSE

This Instruction updates and reissues reference (a) to reflect a new Instruction number, a new responsible office, and new references.

2. APPLICABILITY

This Instruction applies to the Office of the Secretary of Defense (OSD) and those Military Departments that use or support mission-essential systems and equipment. The term "Military Services," as used herein, refers to the Army, Navy, Air Force, and Marine Corps.

3. POLICY

It is DoD policy that materiel condition reporting for mission-essential systems and equipment shall be in accordance with this Instruction.

4. RESPONSIBILITY

4.1. The Assistant Secretary of Defense (Production and Logistics) (ASD(P&L)) shall:

4.1.1. Monitor the materiel condition reporting for mission-essential systems and equipment.

4.1.2. Maintain this Instruction to ensure proper reflection of policy and procedural changes that may affect the guidance herein.

4.2. The Heads of Military Departments shall:

4.2.1. Collect and report condition status information for those systems and equipment designated as mission-essential materiel.

4.2.2. Use the criteria set forth in this Instruction to review maintenance and supply effectiveness in support of mission-essential systems and equipment.

4.2.3. Identify the primary causes of high downtime or excessive support costs for correction.

5. PROCEDURES

5.1. The Military Services shall establish quantitative materiel condition goals for their mission-essential systems and equipment. These goals shall be estimates of the maximum that is achievable with the design characteristics (especially reliability and maintainability) of the equipment, with planned peacetime usage, and with full funding and optimal operation of the peacetime manpower and logistic support systems under existing DoD policy. The goals shall be reviewed by the Military Services periodically and revised when necessary to ensure validity.

5.1.1. Except for ships, quantitative goals shall be established by type, model, series (TMS) (mission design series (MDS) for aircraft and missiles). Ships shall be categorized generically.

5.1.2. Condition information shall be maintained by the Military Services for comparison to the established goals and evaluated at intervals that are sufficiently frequent (at least quarterly) to provide a quantitative and objective appraisal that indicates substandard areas requiring corrective action.

5.2. Systems and equipment reportable by this Instruction are considered mission capable when safe for use, and when the subsystems, designated by the Military Service as mission-essential, are installed and operable for the performance of one or more assigned missions. Mission-essential subsystems are those required to perform primary functions such as fire control, sonar, bombing, communications, electronic countermeasures (ECM), or radar. For systems and equipment with a single mission, such as ground launch missile systems and Army and Marine Corps ground equipment, system capability may be reported on a go or no-go basis. A go condition indicates the system/equipment can perform its single mission; a no-go condition indicates it cannot.

5.3. Time shall be measured hourly or to the closest increment of an hour, except that time for Army and Marine Corps ground equipment shall be measured to the nearest whole day. For example, equipment down for more than 12 hours should be counted as 1 day; whereas for equipment down less than 12 hours no time is recorded.

5.4. Condition Status Measurements. The condition status codes listed below shall be used to describe the capability of systems or equipment, other than ships and submarines, to perform their assigned missions; describe the causes for systems or equipment being unable to perform their assigned mission; and measure maintenance and supply effectiveness under peacetime operating conditions. Condition status measurements defined in the following paragraphs shall not be applicable to ships and submarines. However, ship and submarine materiel condition status reporting data shall be covered by the Navy Casualty Summary Report (CASREP).

5.4.1. Full-Mission Capable (FMC). Systems and equipment shall be considered FMC when they are safe and have all mission-essential subsystems installed and operating as designated by a Military Service.

5.4.2. Partial-Mission Capable (PMC). Systems and equipment shall be considered PMC when they are safely usable and can perform one or more but not all assigned missions because one or more of their mission-essential subsystems are inoperative for maintenance or supply reasons. This status code is not used for equipment with a single mission, such as ground launch missile systems and Army and Marine Corps ground equipment. The Military Services may further subdivide PMC into maintenance and supply categories.

5.4.3. Mission Capable (MC). MC status data shall consist of the sum of FMC and PMC for purposes of reporting to OSD.

5.4.4. Not Mission Capable (NMC). NMC is a materiel condition indicating that systems and equipment are not capable of performing any of their assigned missions. Equipment with a single mission, such as ground launch missile systems, and Army and Marine Corps ground equipment, in a no-go condition are reported in this status. NMC shall be divided into the following categories:

5.4.4.1. Not Mission Capable Maintenance (NMCM). NMCM is a materiel condition indicating that systems and equipment are not capable of performing any of their assigned missions because of unit level maintenance requirements. Recording of NMCM time shall start for: (a) unscheduled maintenance, when a malfunction is discovered, or at mission completion, whichever is later; and (b) scheduled maintenance, when the determination is made that a system cannot be returned to mission capable status within 2 hours. Time stops when maintenance has been completed or is interrupted by work stoppage due to supply shortage. The period of work stoppage due to supply shall be measured as NMCS. NMCM shall resume when required supply items are delivered to the maintenance activity.

5.4.4.2. Not Mission Capable Supply (NMCS). NMCS is a materiel condition indicating that systems and equipment are not capable of performing any of their assigned missions because of maintenance work stoppage due to a supply shortage. Recording of NMCS time shall start when work stoppage results from lack of parts, and the NMCS requisition is not satisfied 1 hour after the demand is initiated and remains unsatisfied. For Army and Marine Corps ground equipment, when both NMCM time and NMCS time are encountered in the same day and the sum is more than 12 hours, the whole day is carried against the condition status with the most hours.

5.5. Problem Identification and Correction (PIAC). Each Military Service shall have a program for the continuous identification and correction of materiel problems that adversely affect the materiel condition of its systems and equipment. For systems and equipment other than ships, at least the high five problems shall be identified for each TMS/MDS at the subsystem level or below. For ships, at least the high five problems shall be identified by generic ship type, such as carriers, cruisers, destroyers, at the subsystem level or below.

5.5.1. Technical documentation, in a format to be determined by each Military Service, shall be maintained for each problem to show, as a minimum, problem description, cause and effect, remedial action, benefits (operational, logistic, or economic), and costs to correct. This information can be used to identify high payoff areas where design emphasis should be placed on new materiel acquisition.

5.5.2. The Military Services shall exchange PIAC program information on multi-Service systems and equipment to avoid duplication of effort and help to ensure coordinated resolution of mutual problems.

6. INFORMATION REQUIREMENTS

6.1. The Military Services shall use their own reporting systems to collect and report data in support of this Instruction. In accordance with reference (b), standard data elements that have been registered with the Department of Defense Comptroller shall be used. The Office of the Assistant Secretary of Defense (P&L) shall be responsible for the maintenance and update of the data elements established by this Instruction.

6.2. Exception-type reporting may be used; that is, unless reported PMC or NMC, weapon systems and essential equipment are considered FMC.

7. EFFECTIVE DATE AND IMPLEMENTATION

This Instruction is effective immediately. Forward two copies of implementing documents to the Assistant Secretary of Defense (Production and Logistics) within 120 days.

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PRINCIPAL DEPUTY ASD(P&L)